

**REMARKS:**

Claims 47, 48, 50-56, and 58-72 are currently pending in the application.

Claims 1-46, 49, and 57 have been previously canceled without prejudice.

Claims 47, 48, 50-56, and 58-72 stand rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,861,885 to Strasnick et al. ("Strasnick") in view of U.S. Patent No. 6,665,682 to DeKimpe et al. ("DeKimpe") and in further view of U.S. Patent No. 6,167,396 to Lokken ("Lokken").

The Applicants respectfully note, that while the Office Action states that Claims 47, 48, 50-56, and 58-72 stand rejected under 35 U.S.C. § 103(a) in view of U.S. Patent No. 6,073,134 to Shoup et al. ("Shoup"), the Office Action fails to cite any portion of *Shoup*, or even discuss *Shoup* in the Office Action. The undersigned, Steven J. Laureanti, telephoned Examiner Wang on 14 January 2006, regarding the *Shoup* reference. Examiner Wang telephoned Mr. Laureanti on 16 January 2006 regarding the *Shoup* reference.

Examiner Wang stated that the *Shoup* reference was a typographical error and that the correct reference should have been *DeKimpe*, as cited in the remainder of the Office Action. The Applicants thank the Examiner for clarifying the references and as such do not discuss or make any arguments as to the *Shoup* reference. The Applicants respectfully request that the Examiner call the undersigned, Steven J. Laureanti, at (817) 447-9955, if the Examiner has additional comments or suggestions regarding the *Shoup* reference or if the Examiner believes it would be easier to discuss the *Shoup* reference over the telephone.

**REJECTION UNDER 35 U.S.C. § 103(a):**

Claims 47, 48, 50-56, and 58-72 stand rejected under 35 U.S.C. § 103(a) over *Strasnick* in view of *DeKimpe* and in further view of *Lokken*.

The Applicants respectfully submit that *Strasnich*, *DeKimpe*, or *Lokken*, either individually or in combination, fail to disclose, teach, or suggest each and every element of Claims 47, 48, 50-56, and 58-72. Thus, the Applicants respectfully traverse the Examiner's obvious rejection of Claims 47, 48, 50-56, and 58-72 under 35 U.S.C. § 103(a) over the proposed combination of *Strasnich*, *DeKimpe*, and *Lokken*, either individually or in combination.

**The Proposed *Strasnich-DeKimpe-Lokken* Combination Fails to Disclose, Teach, or Suggest Various Limitations Recited in Applicants Claims**

For example, with respect to independent Claim 47, this claim recites:

***A computer graphical user interface system*** comprising:  
a database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data; and  
***a multi-dimensional graphical user interface*** coupled to the database and capable of ***user interaction*** to provide a ***multi-dimensional user interactive graph*** comprising:  
***a multi-dimensional axes data hierarchy*** including a top layer hierarchy associated with a ***first axis dimension***, a top layer hierarchy associated with a ***second axis dimension***, and a top layer hierarchy associated with a ***third axis dimension***; and  
***a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies*** of the multi-dimensional axes data hierarchy; and  
***a multi-dimensional value hierarchy associated with each of the function values*** of the multi-dimensional axes data hierarchy.  
(Emphasis Added).

Independent Claims 55 and 63 recite similar limitations. *Strasnich*, *DeKimpe*, or *Lokken*, either individually or in combination, fail to disclose, teach, or suggest each and every element of independent Claims 47, 55, and 63.

The Applicants respectfully submit that *Strasnich* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a "***computer graphical user interface system***" and in particular *Strasnich* fails to disclose, teach, or suggest independent Claim 47 limitations regarding "***a multi-dimensional graphical user interface*** coupled to the

database and capable of *user interaction* to provide a *multi-dimensional user interactive graph*". Rather, *Strasnich* discloses a navigation system containing graphical objects and uses the term "axis" in association with the navigation system. (Abstract and Column 1, Lines 40-50). However, *Strasnich* only uses the term axis to refer to an x axis width and a y axis height of one or more graphical objects in the display such that *a navigator may alter the navigator's perspective of the information landscape by adjusting the x or horizontal dimension relative to the viewpoint of the navigator.* (Column 16, Lines 33-63). *Strasnich* does not disclose, teach, or suggest a multi-dimensional axes data hierarchy, or even a navigation system that is capable of including a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies associated with multiple axis dimensions. Thus, *Strasnich* cannot provide a "*computer graphical user interface system*" or even "*a multi-dimensional axes data hierarchy including a top layer hierarchy associated with a first axis dimension, a top layer hierarchy associated with a second axis dimension, and a top layer hierarchy associated with a third axis dimension; and a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy*", since *Strasnich* merely describes adjusting the perspective of the information landscape by adjusting the x or horizontal dimension relative to the viewpoint of the navigator.

**The Office Action Acknowledges that *Strasnich* Fails to Disclose Various Limitations Recited in Applicants Claims**

The Applicants respectfully submit that the Office Action acknowledges, and the Applicants agree, that *Strasnich fails to disclose the emphasized limitations noted above in independent Claim 47*. Specifically the Examiner acknowledges that *Strasnich* fails to disclose a "top layer hierarchy associated with *a third axis dimension*". (16 October 2006 Office Action, Page 10). However, the Examiner asserts that the cited portions of *DeKimpe* disclose the acknowledged shortcomings in *Strasnich*. The Applicants respectfully traverse the Examiner's assertions regarding the subject matter disclosed in *Dekimpe*.

The Applicants respectfully submit that *Dekimpe* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a “***multi-dimensional graphical user interface*** coupled to the database and capable of ***user interaction*** to provide a ***multi-dimensional user interactive graph***” and in particular *Dekimpe* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a “***multi-dimensional axes data hierarchy*** including a top layer hierarchy associated with ***a first axis dimension***, a top layer hierarchy associated with ***a second axis dimension***, and a top layer hierarchy associated with ***a third axis dimension***”. In particular, the Examiner equates the “top layer hierarchy associated with ***a third axis dimension***” recited in independent Claim 47 with the “***cube***” disclosed in *Dekimpe*. (16 October 2006 Office Action, Page 11). However, the “***cube***” disclosed in *Dekimpe* merely illustrates the structure of the database, and ***does not include, involve, or even relate to*** a “***multi-dimensional axes data hierarchy*** including a top layer hierarchy associated with ***a first axis dimension***, a top layer hierarchy associated with ***a second axis dimension***, and a top layer hierarchy associated with ***a third axis dimension***”, as recited in independent Claim 47. (Column 5, Line 64 through Column 6, Line 21). In contrast, the “top layer hierarchy associated with ***a third axis dimension***” recited in independent Claim 47 is part of the “***multi-dimensional graphical user interface***” that is “coupled to the database” that provides for “***user interaction***” to “provide a ***multi-dimensional user interactive graph***”. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner’s comparison between *Dekimpe* and independent Claim 47 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish independent Claim 47 from *Dekimpe*.

In addition, it appears that the Examiner asserts that the cited portions of *Lokken* disclose the above-acknowledged shortcomings in *Strasnick*. The Applicants respectfully traverse the Examiner’s assertions regarding the subject matter disclosed in *Lokken*.

The Applicants respectfully submit that *Lokken* fails to disclose, teach, or suggest independent Claim 47 limitations regarding a “***multi-dimensional graphical user interface*** coupled to the database and capable of ***user interaction*** to provide a ***multi-dimensional user interactive graph***” and in particular *Lokken* fails to disclose, teach, or

suggest independent Claim 47 limitations regarding a “***multi-dimensional axes data hierarchy*** including a top layer hierarchy associated with ***a first axis dimension***, a top layer hierarchy associated with ***a second axis dimension***, and a top layer hierarchy associated with ***a third axis dimension***”. In particular, the Examiner equates “***multi-dimensional graphical user interface***” recited in independent Claim 47 with the “***hierarchy structure***” disclosed in *Lokken*. (16 October 2006 Office Action, Page 11). However, the “***hierarchy structure***” disclosed in *Lokken* is merely provided for displaying a decomposition tree and ***does not include, involve, or even relate to the multi-dimensional graphical user interface***, as recited in independent Claim 47. (Column 4, Line 60 through Column 5, Line 11). In contrast, the ***multi-dimensional graphical user interface*** is coupled to a database and is capable of ***user interaction*** to provide a ***multi-dimensional user interactive graph*** wherein the ***multi-dimensional axes data hierarchy*** includes a top layer hierarchy associated with ***a first axis dimension***, a top layer hierarchy associated with ***a second axis dimension***, and a top layer hierarchy associated with ***a third axis dimension***. Thus, the Applicants respectfully submit that the equations forming the foundation of the Examiner’s comparison between *Lokken* and amended independent Claim 47 cannot be made. The Applicants further respectfully submit that these distinctions alone are sufficient to patentably distinguish amended independent Claim 47 from *Lokken*.

#### **The Office Action Fails to Properly Establish a *Prima Facie* case of Obvious over the Proposed *Strasnich-DeKimpe-Lokken* Combination**

The Applicants respectfully submit that the Office Action has failed to properly establish a *prima facie* case of obviousness based on the proposed combination of *Strasnich*, *DeKimpe*, and *Lokken*, either individually or in combination. The Office Action has not shown the required teaching, suggestion, or motivation in these references or in knowledge generally available to those of ordinary skill in the art at the time of the invention to combine *Strasnich*, *DeKimpe*, or *Lokken* as proposed. The Office Action merely states that “it would have been obvious to one of the ordinary skill in the art at the time of invention was made ***to have incorporated DeKimpe’s or***

*Lokken's data visualization method'*. (16 October 2006 Office Action, Page 12). (Emphasis Added). The Applicants respectfully disagree.

The Applicants further respectfully submit that this purported advantage relied on by the Examiner is nowhere disclosed, taught, or suggested in *Strasnich*, *DeKimpe*, or *Lokken*, either individually or in combination. In essence, the Examiner asserts that one of ordinary skill in the art at the time of the invention would have been motivated "**because Strasnich's two dimensional hierarchy can be easily extended into higher-dimensional hierarchies including the three-dimensional hierarchy.**" (16 October 2006 Office Action, Page 12). (Emphasis Added). The Applicants respectfully disagree and further respectfully request clarification as to how the Examiner arrives at this conclusion. For example, it is not clear what the Examiner means by "Strasnich's two dimensional hierarchy **can be easily extended** into higher-dimensional hierarchies" (i.e. what "higher-dimensional hierarchy" is the Examiner referring to. In addition, it is not clear how the Examiner arrives at the conclusion that is how "**Strasnich's two dimensional hierarchy can be easily extended into higher-dimensional hierarchies**" and it is further unclear how the Examiners purported "**easily extended**" applies to the subject Application. **The Applicants respectfully request the Examiner to point to the portions of Strasnich, DeKimpe, or Lokken which contain the teaching, suggestion, or motivation to combine these references for the Examiner's stated purported advantage.** In particular, the Applicants respectfully request the Examiner to point to the portions of *Strasnich*, *DeKimpe*, or *Lokken* which expressly disclose how "**Strasnich's two dimensional hierarchy can be easily extended**". The Applicants further submit that the Examiner is using the subject Application as a template to formulate reconstructive hindsight, which constitutes impermissible use of hindsight under 35 U.S.C. § 103(a).

A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the **prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art.** *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). (Emphasis Added). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. With respect to

the subject Application, ***the Examiner has not adequately supported the selection and combination of Strasnick, DeKimpe, or Lokken to render obvious the Applicants claimed invention.*** The Examiner's conclusory statements that "it would have been obvious to one of the ordinary skill in the art at the time of invention was made ***to have incorporated DeKimpe's or Lokken's data visualization method***' and that "because Strasnick's two dimensional hierarchy ***can be easily extended*** into higher-dimensional hierarchies including the three-dimensional hierarchy", ***does not adequately address the issue of motivation to combine.*** (16 October 2006 Office Action, Page 12). (Emphasis Added). This factual question of motivation is material to patentability, and cannot be resolved on subjective belief and unknown authority. *Id.* It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983). Thus, ***the Office Action fails to provide proper motivation for combining the teachings of Strasnick, DeKimpe, or Lokken,*** either individually or in combination.

#### **The Proposed Strasnick-DeKimpe-Lokken Combination Fails to Disclose, Teach, or Suggest Various Limitations Recited in Applicants Dependent Claims 67-72**

The Applicants respectfully submit that *Strasnick, DeKimpe, or Lokken*, either individually or in combination, fail to disclose, teach, or suggest each and every element of Claims 67-72. Thus, the Applicants respectfully traverse the Examiner's obvious rejection of Claims 67-72 under 35 U.S.C. § 103(a) over the proposed combination of *Strasnick, DeKimpe, and Lokken*, either individually or in combination.

For example, with respect to dependent Claims 67 and 68, these claims recite:

67. The computer graphical user interface system according to Claim 47, wherein ***the multi-dimensional graphical user interface further comprises:***

***a first wall graphical user interface grid associated with a mathematical summarization of the plurality of function values*** associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy. (Emphasis Added).

68. The computer graphical user interface system according to Claim 67, wherein the multi-dimensional graphical user interface further comprises:

*a second wall grid associated with the mathematical summarization of the plurality of function values* associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy. (Emphasis Added).

Dependent Claims 69-72 recite similar limitations. *Strasnich*, *DeKimpe*, or *Lokken*, either individually or in combination, fail to disclose, teach, or suggest each and every element of dependent Claims 67-72.

**The Office Action Acknowledges that the Proposed *Strasnich-DeKimpe* Combination Fails to Disclose Various Limitations Recited in Applicants Claims**

The Applicants respectfully submit that the Office Action acknowledges, and the Applicants agree, that the proposed *Strasnich* and *DeKimpe* combination fails to disclose the emphasized limitations noted above in dependent Claims 67 and 68. However, the Examiner asserts that the cited portions of *Lokken* disclose the acknowledged shortcomings in *Strasnich* and *DeKimpe*. The Applicants respectfully traverse the Examiner's assertions regarding the subject matter disclosed in *Lokken*.

The Applicants respectfully submit that *Lokken* fails to disclose, teach, or suggest dependent Claims 67 and 68 limitations regarding a "*multi-dimensional graphical user interface*" and in particular *Lokken* fails to disclose, teach, or suggest dependent Claims 67 and 68 limitations regarding a "*first wall graphical user interface grid*" and a "*second wall grid* *associated with the mathematical summarization of the plurality of function values*". Rather *Lokken* merely provides for navigating through data points in a database and *does not include or is not even related to a first wall or a second wall graphical user interface grid*, as recited in dependent Claims 67 and 68. Thus, dependent Claims 67 and 68 are not rendered obvious by the proposed combination of *Strasnich*, *DeKimpe*, or *Lokken*, or in knowledge generally available to those of ordinary skill in the art at the time of the invention and are in condition for allowance.

**The Applicants Claims are Patentable over the Proposed *Strasnich-DeKimpe-Lokken* Combination**

With respect to independent Claims 55 and 63, each of these claims includes limitations similar to those discussed above in connection with independent Claim 47. Thus, independent Claims 55 and 63 are considered patentably distinguishable over the proposed combination of *Strasnich*, *DeKimpe*, or *Lokken* for at least the reasons discussed above in connection with independent Claim 47.

With respect to dependent Claims 48, 50-54, 56, 58-62, and 64-72: Claims 48, 50-54, 67, and 68 depend from independent Claim 47; Claims 56, 58-62, 69, and 70 depend from independent Claim 55; and Claims 64-66, 71, and 72 depend from independent Claim 63. As mentioned above, each of independent Claims 55 and 63 include limitations similar to those discussed above in connection with independent Claim 47. Thus, dependent Claims 48, 50-54, 56, 58-62, and 64-72 are considered patentably distinguishable over the proposed combination of *Strasnich*, *DeKimpe*, or *Lokken* for at least the reasons of depending from an allowable claim and are therefore considered to be in condition for allowance.

For at least the reasons set forth herein, the Applicants respectfully submit that Claims 47, 48, 50-56, and 58-72 are not rendered obvious by the proposed combination of *Strasnich*, *DeKimpe*, or *Lokken*, or in knowledge generally available to those of ordinary skill in the art at the time of the invention. The Applicants further respectfully submit that Claims 47, 48, 50-56, and 58-72 are not rendered obvious by the proposed combination of *Strasnich*, *DeKimpe*, or *Lokken*, or in knowledge generally available to those of ordinary skill in the art at the time of the invention, and are in condition for allowance. Thus, the Applicants respectfully request that the rejection of Claims 47, 48, 50-56, and 58-72 under 35 U.S.C. § 103(a) be reconsidered and that Claims 47, 48, 50-56, and 58-72 be allowed.

## THE LEGAL STANDARD FOR OBVIOUSNESS REJECTIONS UNDER 35 U.S.C. § 103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, ***there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.*** Second, there must be a reasonable expectation of success. Finally, ***the prior art reference*** (or references when combined) ***must teach or suggest all the claim limitations.*** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, ***and not based on applicant's disclosure.*** *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there ***must be something in the prior art as a whole to suggest the desirability,*** and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

A recent Federal Circuit case makes it clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

**CONCLUSION:**

In view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and early reconsideration and a Notice of Allowance are earnestly solicited.

Although the Applicants believe no additional fees are deemed to be necessary; the undersigned hereby authorizes the Commissioner to charge any additional fees which may be required, or credit any overpayments, to **Deposit Account No. 500777**.

**Please link this application to Customer No. 53184 so that its status may be checked via the PAIR System.**

Respectfully submitted,

1/16/07

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